



1/15/04
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Michael Hu et al

DOCKET NO.: 1142.1

SERIAL NO.: 10/673,719

ART UNIT:

FILED: 9/29/2003

EXAMINER:

TITLE: Production of Aligned Microfibers and Nanofibers and Derived Functional Monoliths

INFORMATION DISCLOSURE STATEMENT under 37 CFR 1.56 and 1.97

Commissioner for Patents
Arlington, VA 22313-1450

Sir:

Submitted herewith on Form PTO-1449 is a listing of documents known to applicant in order to comply with applicant's duty of disclosure pursuant to 37 C.F.R. 1.56. A copy of each document is being submitted herewith to comply with the provisions of 37 C.F.R. 1.97 and 1.98.

Applicant presents these references that the Patent Office may determine any relevancy thereof to the presently claimed invention.

Applicant respectfully requests that the references be expressly considered during the prosecution of the subject application and made of record therein and appear among the "references cited" on any patent to issue therefrom.

Applicant also requests that an initialed copy of Form PTO-1449 be returned in accordance with MPEP Section 609.

Respectfully submitted,

Shelley L. Stafford, *Agent for Applicant*

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Application Number

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First Named Inventor

Michael Hu

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	2	BLOCK, H., Electro-rheology, J. Physics. D: Appl. Phys. 21, 1988, 1661-1677, IOP Publishing, UK.	
	3	BOGUSH, G., Uniform Silica Particle Precipitation: An Aggregative Growth Model, J. Colloid and Interface Science, 3/1/01, 19-34, 142, 1, Academic Press, US.	
	4	BOGUSH, G., Studies on the Formation of Monodisperse Silica Powders, Ultrastructure Proc. Adv. Ceramics, 1988, 477-486, Wiley, US.	
	5	BOGUSH, G., Preparation of Monodisperse Silica Particles: Control of Size and Mass Fraction, J. Non-Crystalline Solids 104, 1988, 95-106, Amsterdam.	
	6	COLON, L., Packing Columns for Capillary Electromatography, J. Chromatography A, 887, 2000, 43-53, Elsevier.	
	7	GAST, A., Electrorheological Fluids as Colloidal Suspensions, Ad. in Colloid and Interface Science, 30, 1989, 153-203, Elsevier.	
	8	HARRIS, M., Theoretical and Experimental Invest. of Growth of Silica and Titania Particles in Low Molecular Wt. Alcohols, Mat. Res. Soc. Symp. Proc, 271, 1992, 291-296, US.	
	9	HARRIS, M., Base-Catalyzed Hydrolysis and Condensation Reactions of Dilute and Concentrated Teos Solutions, J. Non-Cryst. Solids 121, 1990, 397-403, Elsevier.	
	10	LOOK, J., Colloidal Interactions During Precip. of Uniform Submicrometre Particles, Faraday Discuss. Chem. Soc., 90, 1990, 345-357.	
	11	Martin, J., Electrorheology of a Model Colloidal Fluid, J. Colloid and Interface Sci., 167, 1994, 437-452, Academic Press, US.	

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NON PATENT LITERATURE DOCUMENTS

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	12	ZOU, H., Monolithic Stationary Phases for Liquid Chromatography and Capillary Electrochromatography, J of Chromatography A, 2002,5-32, 954.	
	13	LUEDTKE, S., Towards the Ultimate Minimum Particle Diameter of Silica Packings in Capillary Electrochromatography, J of Chromatography A, 2000, 339-346, 887	
	14	TANAKA, N., Monolithic Silica Columns for High-Efficiency Chromatographic Separations, J of Chromatography A, (2002), 35-49, 965.	
	15	HERMANSON, K., Dielectrophoretic Assembly of Electrically Functional Microwires from Nanoparticle Suspensions, Science 11/01, 1082-1086, 294, USA.	
	16	FUDOUZI, H., Assembling 100 mm Scale Particles by an Electrostatic Potential Field, J Nanoparticle Research, 2001, 193-200, 3, Kluwer Publishing, Netherlands.	
	17	FRADEN, S., Electric-Field-Induced Association of Colloidal Particles, Physical Review Letters, 11/1989, 2373-2376, 63, 21, USA.	
	18	STOBER, W., Controlled Growth of Monodisperse Silica Spheres in the Micron Size Range, J Colloid and Interface Science, 1968, 62-69, 26, USA.	
	19	SANTACESARIA, E., Kinetics of Titanium Dioxide Precipitation by Thermal Hydrolysis, 5/1986, 44-53, 111, No. 1, Academic Press, USA.	
	20	MIMOUNI, Z., Field-induced Structure in a Colloidal Suspension, Prog Colloid Polym Sci, 1990, 120-125, 81, Springer-Verlag, New York.	
	21	PURSCH, M., Stationary Phases for Capillary Electrochromatography, 2000, 313-326, J of Chromatography A, 2000,887, Amsterdam.	

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	22	RATNAYAKE, C., Characteristics of Particle-Loaded Monolithic Sol-Gel Columns for Capillary Electrochromatography, J of Chromatography A, 2000, 277-285, 887, Amsterdam.	
	23	SCHWAN, H., Interactions Between Electromagnetic Fields and Cells, NATO Advanced Research Workshop, 1984, 97, 371, Plenum Press, NY.	
	24	SHER, L., On the Possibility of Nonthermal Biological Effects of Pulsed Electromagnetic Radiation, Biophysical Journal, 1970, 970-979, 10, USA.	
	25	SVEC, F., Design of the Monolithic Polymers Used in Capillary Electrochromatography Columns, J of Chromatography A, 2000, 3-29, 887, Elsevier.	
	26	TAKASHIMA, S., Alignment of Microscopic Particles in Electric Fields and Its Biological Implications, Biophysical Society, 4/1985, 513-518, 47, USA.	
	27	TANG, Q., Capillary Electrochromatography Using Continuous-Bed Columns of Sol-Gel Bonded Silica Particles with Mixed-Mode Octadecyl and Propylsulfonic Acid Functional	
		(continued) Groups, J of Chromatography A, 2000, 265-275, 887, Elsevier.	
	28	TANG, Q., Monolithic Columns Containing Sol-Gel Bonded Octadecylsilica for Capillary Electrochromatography, J of Chromatography A, 1999, 35-50, 837, Elsevier.	
	29	WINSLOW, W., Induced Fibration of Suspensions, Applied Physics, 1949, 1137-1140, 20, USA.	

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